

P11.

Hydrology of saline grasslands in the polders of “De Schelde”**W. Beyen and P. Meire***Ecosystem Management Research Group, Department of Biology, University of Antwerp*

For economic reasons, the Flemish government and the Antwerp port authorities are enlarging the Harbour of Antwerp. Therefore, they create new docks and industrial sites in the polders of “Het Waasland”, situated on the left bank of the Schelde – in front of Antwerp. Two decades earlier however, the Flemish government protected important parts of these polders by assigning them the status of Special Protection Area (SPA) under the EU Bird directive. In such cases, the Bird directive demands compensation measures for the loss of protected bird habitats.

Among these protected habitats are the very rare saline grasslands. Because these grasslands need very specific hydrological and ecological conditions to develop, it isn't possible to create them wherever we want to do. To find possible sites for the re-creation of these saline grasslands, we carried out a detailed study of the hydrology, geomorphology and ecology of the “Waaslandpolders”.

The results indicate that the saline conditions originate from discharging groundwater passing through a saline peat layer. These conditions are related to the deposits of coarse grain soils, situated at the landside of dikes near former creeks. In the polders of “Het Waasland”, three other parts have the same origin and lie outside the future extents of the harbour. Only in one of them, we found the same special hydrological conditions present in the existing grasslands. The presence of these conditions says nothing about the occurrence of saline vegetation in the future. Therefore, we now study the development of saline grasslands.